What is claimed is:

1. An image processing apparatus for detecting posture, or posture and position of an object comprising:

an image capturing device;

a memory storing reference models created based on image data of a reference object captured by said image capturing device in a plurality of directions, and storing information of the capturing directions to be respectively associated with said reference models, said reference object being the object of detection or an object having a shape identical to that of the object of detection; and

a processor to perform matching processing on image data containing an image of the object of detection captured by said image capturing device with said reference models to select an image of an object matched with one of said reference models, and to obtain posture, or posture and position of the object based on the selected image of the object, said one reference model and the information of the direction associated with said one reference model.

2. An image processing apparatus according to claim 1, wherein said reference models comprises a part of the image data of the reference object.

3. An image processing apparatus according to claim 1, wherein said reference models are obtained by processing the image data of the reference object.

4. An image processing apparatus according to claim 1, wherein said

image capturing device comprises a camera for capturing two-dimensional image data.

5. An image processing apparatus according to claim 4, wherein said image data of the reference object are captured by said image capturing device from a predetermined distance.

6. An image processing apparatus according to claim 1, wherein said image capturing device comprises a visual sensor for capturing three-dimensional image data.

7. An image processing apparatus according to claim 6, wherein said image data containing an image of the object of detection captured by said visual sensor is two-dimensional arrangement data including distance information from the object of detection to the image capturing device, a part of said two-dimensional arrangement data or a set of distance data.

8. An image processing apparatus according to ~~an one of claims 1~~ *claim 1* ~~through 7,~~ wherein said image capturing device is attached to a robot.

9. An image processing apparatus according to claim 1, wherein said image data of the reference object are captured in a place different from a place where the detection of the object is performed, and supplied to the image processing apparatus on line or off line.